

ABSTRACT

A process and apparatus are provided for converting oxygenate to olefins which comprises: contacting a feedstock comprising oxygenate with a catalyst comprising a molecular sieve under conditions effective to produce a vaporous product comprising the olefins, water and unreacted oxygenate; condensing the vaporous product to provide a liquid stream rich in the water and unreacted oxygenate, and an olefins-rich vapor stream; introducing at least part of the liquid stream to a feed tray in a fractionation tower which provides an oxygenate-rich overhead product and a water-rich liquid bottoms product; providing a liquid, oxygenate-rich stream comprising at least about 20 wt% oxygenate above the feed tray; and passing the olefins-rich vapor stream through a recovery train to recover at least some of the olefins.